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A FLOW CHART APPROACH TO CONSOLIDATIONS

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E.C.R.S.B. 81-3

A FLOW CHART APPROACH TO CONSOLIDATIONS

ABSTRACT

Although the consolidation process is a series of interrelated adjustments and eliminations, it is rarely pictured as an integrated whole. The flow chart approach presented herein accomplishes this objective and can serve as a model for the solution of consolidation problems. Following this conceptual approach allows the user to see the place of each adjustment and elimination in the overall perspective of the consolidation process.

A FLOW CHART APPROACH TO CONSOLIDATIONS

The teaching of consolidations often follows a segmented approach in which selected topics and the related eliminations are examined somewhat independently of each other and of the effect on the overall consolidation. In the flow chart approach presented in this paper, the emphasis is on the complete sequential development of the consolidation process through a series of interrelated steps and eliminations. The flow chart, augmented by the development of the elimination entries identified in the flow diagram, is presented in Figure 1.

In conformity with Modern Advanced Accounting Meigs, Mosich and Larsen, 1975 Figure 1 utilizes entity theory for the calculation of goodwill, parent theory for the computation of minority interest, and the treasury stock method for dealing with parent company stock owned by a subsidiary. Income taxes are omitted from consideration and proper use of the equity method by the parent in accounting for the investment in the subsidiary is assumed. However, it is further assumed that the parent recorded its share of the subsidiary's net income as reported without adjustment for items of intercompany profit or loss included in the net income of the subsidiary. Abbreviations used are as follows:

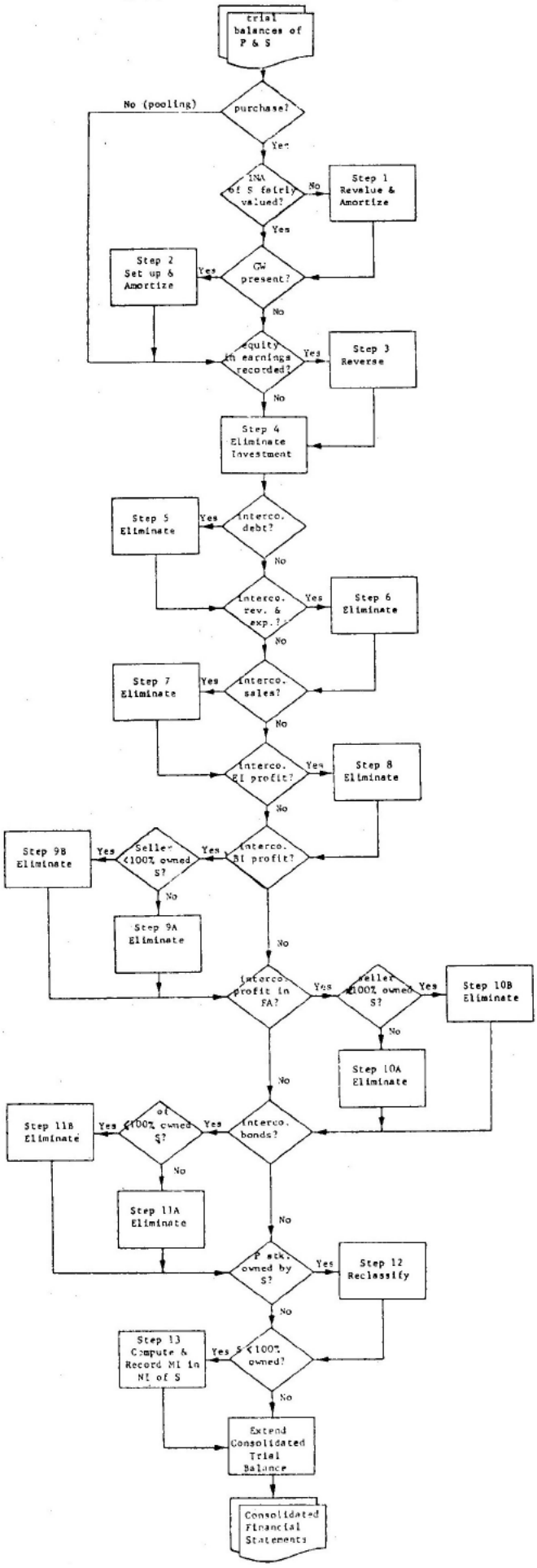
INA = identifiable net assets	FA = fixed assets
S = subsidiary company	MI = minority interest
P = parent company	APIC = additional paid in capital
GW = goodwill	BRE = beginning retained earnings
EI = ending inventory	FV = fair value
BI = beginning inventory	BV = book value

Although the flow chart does not cover every conceivable problem and situation which can arise in a consolidation, it will accomodate most consolidations. In fact, the three types of consolidation problems which have appeared in the practice part of the CPA examination in recent years can be solved by following the procedures outlined. The only necessary adaptation is to substitute "net income" for specific

revenue and expense accounts in the eliminations if a retained earnings statement and a balance sheet are furnished instead of a pre-closing trial balance. If the problem involves only a balance sheet, "retained earnings" would be used in the eliminations in place of the nominal accounts. Figure 2 shows the use of the step-by-step procedures in solving these three types of consolidation problems. The CPA examination problems are identified but not reproduced and only the eliminations required by each problem are shown.

FIGURE 1

Consolidation Flow Chart and Elimination Steps



1. Adjust INA of S to FV as of date of P's purchase of S, and correct amortization, both past (from date of purchase to beginning of current year) and current (this year's)

If INA undervalued:	If INA overvalued:

INA
  APIC of S
	APIC of S
	  INA

Expense (current)
BRE (past)
  INA
	INA
	  Expense (current)
	  BRE (past)

2. Compute and record GW as of date of purchase, and reflect associated amortization, both past and current

GW = (Cost of Investment - (P's % ownership x FV of INA of S at date of purchase, less any preferred stock equity therein)) ÷ P's %

If positive GW:	If negative GW:

GW
  APIC of S
	APIC of S
	  Fixed Assets (or other appropriate account)

Expense (current)
BRE (past)
  GW
	Fixed Assets
	  Expense (current)
	  BRE (past)

3. Eliminate equity in earnings of S against investment in common stock of S

Equity in Earnings of S
  Investment in Common Stock of S

4. Eliminate P's investment account(s) against contributed capital accounts of S, BRE of S and current dividends of S, if any. (Note: If P's % ownership changed during the year, retained earnings of S at date of change should be used rather than BRE. MI in stockholders' equity of S, if any, is isolated in this process, with the exception of MI in current net income of S which is recorded in Step 13)

Preferred Stock of S (if any)
Common Stock of S
APIC of S
BRE of S
  Dividends of S
  Investment in Preferred Stock of S (if any)
  Investment in Common Stock of S
  MI

5. Eliminate intercompany indebtedness

Payables
  Receivables

6. Eliminate intercompany service revenue and expense

Service Revenue
  Service Expense

7. Eliminate intercompany sales

Sales
  Cost of Sales

8. Eliminate intercompany EI profit

Cost of Sales
  EI

9. Eliminate intercompany BI profit

A. If sold by P or 100% owned S:	B. If sold by less than 100% owned S:

BRE
  Cost of Sales
	BRE (P's % ownership x profit)
	MI (MI's % ownership x profit)
	  Cost of Sales

10. Eliminate intercompany profit in fixed assets and excess depreciation, that is, depreciation taken on the gain element

A. If sold by P or 100% owned S:	B. If sold by less than 100% owned S:

Gain (or BRE, if sale in prior year)
  Fixed Asset
	Gain (or BRE (P's % x gain) and MI (MI's % x gain) if sale in prior year)
	  Fixed Asset

Fixed Asset (or Accum. Depr.)
  Deprec. Expense (current)
  BRE (past)
	Fixed Asset (or Accum. Depr.)
	  Deprec. Expense (current)
	  BRE (P's % x past deprec. on gain element)
	  MI (MI's % x past deprec. on gain element)

Note: If intercompany sale of inventory or fixed assets made below cost, all entries in 8 to 10 above would be reversed as to debit and credit and "loss" substituted for "gain" in 10A and 10B.

11. Eliminate intercompany bondholdings

A. If bonds of P or 100% owned S:	B. If bonds of less than 100% owned S:

Bonds Payable (face amount owned)
  Investment in Bonds (BV)
Bond Premium (% owned x BV of premium) (or Bond Discount, if applicable)
Interest Revenue (on the bonds owned)
  Interest Expense (on the bonds owned)
Loss (or BRE, if purchased in prior year) (or Gain (or BRE), if applicable)
	The entry is the same except that any balancing debit or credit (to BRE) must be split between P and MI according to their relative % ownerships.

12. Set up any shares of parent company stock owned by S as treasury stock, and eliminate any dividends on such stock

Treasury Stock	Dividend Revenue
Investment in P Stock	Dividends

13. Record MI in the net income of S (after adjusting the reported net income for eliminations made in Steps 1, 2, 8B, 9B, 10B, and 11B)

	Reported Net Income of S
Steps 1 & 2	+(-) amortization expense correction
Step 8B	- profit in EI of P
Step 9B	+ profit in BI of P
Step 10B	- gain (if this year's transaction) + depreciation (current year)
Step 11B	+ gain (- loss) if this year's transaction - positive (+ negative) difference between interest revenue and interest expense on bonds owned
	Adjusted Net Income of S (ANI)

then, the entry would be

MI in Net Income of S (MI's % x ANI)
  MI

CPA Examination Consolidation Eliminations Based on the Flow Chart

Step	Type of Problem		
	Pre-closing Trial Balance (May 1975 Part II No. 5)	Retained Earnings Statement and Balance Sheet (November 1976 Part II No. 4)	Balance Sheet (November 1977 Part I No. 3)
1.	Land 540,000 Mach. & Equip. 2,750,000 Other Assets 90,000 Accum. Depr.: M & E 750,000 Cost of Goods Sold 128,000 APIC of S 2,322,000		Prop., Pl. & Eq. 13,100,000 Long-term Debt 400,000 Other Assets 300,000 APIC of S 13,200,000
	Dep. Expense 236,250 Accum. Dep.: M & E 236,250		Other Assets 10,000 Ret. Earnings 40,000 Prop., Pl. & Eq. 500,000 Long-term Debt 5,000
2.	Goodwill 1,400,000 APIC of S 1,400,000		Goodwill 2,800,000 APIC of S 2,800,000
	Amort. Expense 52,500 Goodwill 52,500		Ret. Earnings 35,000 Goodwill 35,000
3.		Net Income 120,000 Invest. in S 120,000	Ret. Earnings 1,250,000 Invest. in S 1,250,000
4.	Pfd. Stock of S 150,000 Common Stk. of S 1,000,000 APIC of S 3,844,000 Ret. Earnings of S at 4/1/74 1,006,000 Investment 6,000,000	Common Stk. of S 250,000 Cont. Cap. of S 50,000 Ret. Earnings of S at 7/1/75 780,000 Dividends of S 100,000 Invest. in S 735,000 Minority Interest 245,000	Common Stk. of S 1,000,000 APIC of S 16,400,000 Ret. Earnings of S at 6/30/76 1,600,000 Invest. in S 19,000,000
5.	Accounts Pay. 56,300 Accounts Rec. 56,300		Accounts Pay. 500,000 Accounts Rec. 500,000
7.	Sales 388,000 Cost of Goods Sold 388,000		
8.	Cost of Goods Sold 4,200 Inventory 4,200	Net Income 4,000 Inventory 4,000	Ret. Earnings 100,000 Inventory 100,000
9B.		Ret. Earnings(7/1/75) 9,000 Minority Interest 3,000 Net Income 12,000	
11.	Subord. Debent. 1,500,000 Interest Revenue 78,750 Investment 1,500,000 Interest Expense 78,750	Bonds Payable 60,000 Invest. in Bonds 58,000 Bond Discount 1,200 Net Income 800	
13.		Minority Interest in Net Income of S (7/1 to 12/31/75) 43,200 Minority Interest 43,200	

REFERENCE

[redacted], Walter B., A. N. Mosich, and E. John Larsen, Modern Advanced Accounting (McGraw-Hill, 1975), pp. 126 - 305.